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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/749,898	12/31/2003	Paul J. Buras	API-1022-COS-921	8912

25264 7590 08/25/2009

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EXAMINER	
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ART UNIT	PAPER NUMBER
1793	
MAIL DATE	DELIVERY MODE
08/25/2009	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

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BEFORE THE BOARD OF PATENT APPEALS AND INTERFERENCES

Application Number: 10/749,898
Filing Date: December 31, 2003
Appellant(s): BURAS ET AL.

Tenley R. Krueger
For Appellant

EXAMINER'S ANSWER

This is in response to the appeal brief filed 1-27-2009 appealing from the Office action mailed 9-20-2008.

(1) Real Party in Interest

A statement identifying by name the real party in interest is contained in the brief.

(2) Related Appeals and Interferences

The examiner is not aware of any related appeals, interferences, or judicial proceedings which will directly affect or be directly affected by or have a bearing on the Board's decision in the pending appeal.

(3) Status of Claims

The statement of the status of claims contained in the brief is correct.

(4) Status of Amendments After Final

The appellant's statement of the status of amendments after final rejection contained in the brief is correct.

(5) Summary of Claimed Subject Matter

The summary of claimed subject matter contained in the brief is correct.

(6) Grounds of Rejection to be Reviewed on Appeal

The appellant's statement of the grounds of rejection to be reviewed on appeal is correct.

(7) Claims Appendix

The copy of the appealed claims contained in the Appendix to the brief is correct.

(9) Grounds of Rejection

The following ground(s) of rejection are applicable to the appealed claims:

Claims 1, 3, 7, 9, 30 and 33 stand finally rejected under 35 U.S.C. 103(a) as being unpatentable over US 6767939.

Claims 1, 3, 4, 7, 9, 30 and 33 stand finally rejected under 35 U.S.C. 103(a) as being unpatentable over US 6104916.

(10) Response to Argument

Construction of Claims

The instant claims are construed in examination consistent with their broadest reasonable interpretation. For example, the preamble recitation of "a method for reducing hydrogen sulfide emissions" is a statement of intent and claims thereto are anticipated by any teaching of the same process steps whether or not the prior art intends to reduce H2S emission solely or in part or even recognizes the possibility thereof. A process part of the public domain may not be captured as an exclusive right simply by the recognition of an unrealized advantage thereto. The prior art cited is representative of a large body of prior art disclosing the addition of materials such as zinc oxide to asphalt compositions. This statement is fully consistent with the Summary of Claimed Subject Matter suggested by appellant. Appellant's arguments stand or fall with the patentability of claim 1. The limitations of other claims are not separately argued in the Brief on Appeal.

Basis of Rejections

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains.

Patentability shall not be negatived by the manner in which the invention was made.

Claims 1, 3, 7, 9, 30 and 33 stand finally rejected under 35 U.S.C. 103(a) as being unpatentable over US 6767939.

The '939 Patent teaches a method of making an asphalt composition useful to be combined with aggregate for paving roads comprising combining asphalt, a styrene butadiene polymer modifier, MBT (mercaptobenzothiazole), zinc oxide and elemental sulfur at a temperature sufficient to allow stirring (indistinguishable from the lowest temperature for effective pumping). While the zinc oxide is intended as a crosslinking promoter it is present in amounts which anticipate the ranges of the instant claims. See Table 5 (disclosing ingredients in amounts anticipating the instant claims) and the patented claims. The reduction in hydrogen sulfide emissions and iron pyrite formation, as the zinc oxide is present in amounts taught by the instant invention, would be expected to necessarily result therefrom. The examples therein further disclose a method of compatibility testing wherein the combined asphalt heated cast into cylindrical molds removed and cut into multiple pieces.

With respect to claim 1, specifically, the patent teaches adding MBT and adding zinc oxide to an asphalt composition in amounts falling within the scope of the amounts of crosslinker and zinc oxide recited in instant claim 1.

The difference between the instant claims and the examples of the patent is the use of MBT as a crosslinking agent in the reference while the instant claims require one of dithiocarbamates, alkyl polysulfides and ester polysulfides. Paragraph [0031] of the

instant specification admits that MBT and dithiocarbamates are known to function as conventional crosslinking agent for asphalt compositions.

> [0031] In one alternate, non-limiting embodiment of the invention, at least a portion of, or optionally all of, a **conventional** sulfur-containing derivative (eg mercaptobenzothiazole (**MBT**), thiurams, **dithiocarbamates**, mercaptobenzimidazole (MBI) and/or elemental sulfur crosslinker for use in asphalts… *(emphasis added)*

It would have been obvious to one of ordinary skill in the art to at least partially substitute a dithiocarbamate for the MBT of the reference because they were known, at the time of the invention, to function equivalently. The instant specification further supports a factual finding that the recited reduction in hydrogen sulfide emissions is observed with use of the crosslinking agents of the prior art (including MBT and thiurams) as well as those of the claims as amended, now under appeal.

Claims 1, 3, 4, 7, 9, 30 and 33 stand finally rejected under 35 U.S.C. 103(a) as being unpatentable over US 6104916.

While appellant's brief does not specifically separately argue the rejection over the '916 patent, analogizing his arguments to those with respect to the '939 patent, they have been specifically treated hereunder.

Column 4, lines 6-43 of the '916 patent teach a method of forming an asphalt for use with aggregate in paving roads comprising mixing asphalt (at about 150 C, indistinguishable from 280 F, since "lower temperature would require considerable mixing energy) with a styrene butadiene polymer modifier and 0.1-2% of a vulcanization composition comprising, for example, 1 part tetramethylthiuram disulfide, 5 parts zinc

oxide, 3 parts stearic acid and 1 part antioxidant. Calculated as, 0.03-1% ZnO and 0.05-1.4% vulcanization composition less ZnO. The reduction in hydrogen sulfide emissions and iron pyrite formation, as the zinc oxide is present in amounts taught by the instant invention, would be expected to necessarily result therefrom.

Appellant's calculation of a maximum amount of ZnO as 0.86% is disputed. There is no teaching in the prior art reference that the maximum amount of ZnO (5 parts) only applies when the maximum amounts of other materials are used (for a total of 23 parts). While the patent allows for greater proportions of ZnO, the examiner most reasonably relies upon the preferred embodiment described at Column 2, lines 41-44 teaches 5 parts ZnO of a total 10 parts indicating 1% ZnO when the polymer modifier is added at 10%. Furthermore, the lower limit of the term "greater then 0.86%" is not materially different from a content of 0.86%.

With respect to claim 1, specifically, the patent teaches adding a thiuram and adding zinc oxide to a polymer modified asphalt composition in amounts falling within the scope of the amounts of crosslinker and zinc oxide recited in instant claim 1.

The difference between these claims and the prior patent is the use of the thiuram crosslinker in the patent while the instant claims require one of dithiocarbamates, alkyl polysulfides and ester polysulfides. Paragraph [0031] of the instant specification admits that thiurams and dithiocarbamates are known to function as conventional crosslinking agent for asphalt compositions.

> [0031] In one alternate, non-limiting embodiment of the invention, at least a portion of, or optionally all of, a **conventional** sulfur-containing derivative (eg mercaptobenzothiazole

(**MBT**), thiurams, **dithiocarbamates**, mercaptobenzimidazole (MBI) and/or elemental sulfur crosslinker for use in asphalts… *(emphasis added)*

It would have been obvious to one of ordinary skill in the art to at least partially substitute a dithiocarbamate for the thiuram of the reference because they are known to function equivalently. The instant specification further supports a factual finding that the recited reduction in hydrogen sulfide emissions is observed with use of the crosslinking agents of the prior art (including MBT and thiurams) as well as those of the claims as amended, now under appeal.

(11) Related Proceeding(s) Appendix

No decision rendered by a court or the Board is identified by the examiner in the Related Appeals and Interferences section of this examiner's answer.

For the above reasons, it is believed that the rejections should be sustained.

Respectfully submitted,

/David M Brunsman/

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